

National 4 Applications of Mathematics

Course Rationale

The purpose of the National 4 Applications of Mathematics Course is to motivate and challenge learners by enabling them to think through real-life situations involving mathematics and to form a plan of action based on logic. The Course develops confidence in being able to handle mathematical processes and information in a range of real-life contexts. The Course also enables learners to make informed decisions based on data presented in a variety of forms. The mathematical skills within this Course are underpinned by numeracy and are designed to develop learners' skills in mathematical reasoning relevant to learning, life and work.

The Course aims to:

- motivate and challenge learners by enabling them to select and apply mathematical skills to tackle straightforward real-life problems or situations
- develop the ability to interpret straightforward real-life problems or situations involving mathematics
- develop confidence in the subject and a positive attitude towards the use of mathematics in straightforward real-life situations
- apply mathematical operational skills with an appropriate degree of accuracy
- use mathematical reasoning skills to assess risk, draw conclusions and explain decisions
- communicate mathematical information in an appropriate way

Course Content and Assessment

This course comprises of 4 units:-

- **Managing Finance and Statistics** - Learners will use skills in budgeting as well as organising and presenting data, to explain solutions and/or draw conclusions in every-day problems. Outcomes cover aspects of finance and statistics in real-life situations requiring mathematical reasoning.
- **Geometry and Measures** - Learners will use skills in interpreting and using shape, space and measures to determine and explain solutions.
- **Numeracy** - Learners will develop numerical and information handling skills to solve real-life problems involving number, money, time and measure. Learners will also interpret graphical data and use their knowledge and understanding of probability.
- **Added Value Unit : Test** - This unit aims to enable learners to provide evidence of added value for the National 4 Applications of Mathematics Course through successful completion of a test that allows the learner to demonstrate breadth and application of skills.

The test will be conducted under exam conditions and consist of 2 papers:-

- Paper 1 Non-calculator
- Paper 2 Calculator

Conditions of award:- To achieve the National 4 Applications of Mathematics course learners must pass all internally assessed units, including the added value unit. Assessment is on a pass/fail basis within centres.

Course Assessments Structure

Learners could be given short or extended response tests online or on paper which covers the Outcomes and Assessment Standards for each Unit. Where possible all questions should be set within realistic and relevant contexts for the learners and could include a mix of short and extended response question.

Progression

Pupils from here should consider doing the National 5 Applications of Maths or the stand alone National 5 Numeracy Unit. Mathematics has applications in many subject areas, and skills developed in this Course could support progression in other curriculum areas. These skills can also support progression into Skills for Work Courses, National Progression Awards, National Certificate Group Awards, and employment

Career Pathways Buying, Selling and Related Work, Computing and ICT, Engineering, Finance, Science and Maths, Teaching and Classroom Support, Transport and Distribution